

IN THE ABSTRACT

Please replace the Abstract of the present application with the Abstract enclosed herewith. The Abstract is presented on a separate sheet in accordance with revised 37 C.F.R. 1.121.

REMARKS

Enclosed are true and accurate copies of the specification of prior application serial no. 10/286,176 and a copy of the executed declaration in the prior application. The prior application is assigned of record to The United States Department of Agriculture, Washington, D.C. The assignment appears in the original papers in the prior application.

The amendments to the specification and claims do not introduce new matter within the meaning of 35 U.S.C. §132. The Title and Abstract have been amended to better reflect the claimed subject matter of this divisional application. The amendments to paragraphs 0002, 0009, 0015, 0019, 0039, 0044, 0052, 0055 and 0061 are presented to solely correct errors of a clerical nature. Accordingly, the Examiner is respectfully requested to enter the above amendment before examination.

It is understood by the applicants that a filing fee of \$770.00 is due in this matter, as per our attached Fee Transmittal Form; if additional charges are due, please deduct from our account: 06-1555.

If the Examiner has any questions regarding this submission,
she is invited to telephone the undersigned attorney.

Respectfully submitted,

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Appendix A
Claim Amendments

1 - 14. (Canceled)

15. (Original) A fire shelter storage system allowing rapid deployment comprising:

an emergency fire shelter comprising a floor and a canopy connected thereto, wherein said floor is oval in shape and has an opening therein; wherein said canopy is semi-capsular in shape; and wherein said floor and canopy are constructed of a material that is heat and fire resistant;

an outer protective pouch sized to receive the emergency fire shelter unit through an open end of the pouch, the pouch further including a cover detachably covering the open end and retained by a releasable fastener attaching a portion of the cover to a portion of the pouch; and

a handle having one end attached to the emergency fire shelter unit and sized so that when the fire shelter unit is received within the pouch and the cover is in place over the opening, the handle may extend out of the pouch adjacent to the releasable fastener to present an exposed end to a user;

whereby the emergency fire shelter is removed from the pouch by applying a force to the handle to release the releasable fastener and extract the fire shelter unit from the pouch.

16. (Original) The fire shelter storage system of claim 15, wherein the emergency fire shelter unit is a folded and sealed in a protective envelope and wherein the handle is

attached to the protective envelope to be separate from the emergency fire shelter.

17. (Original) The fire shelter storage system of claim 15, wherein the handle is a flexible strap.

18. (Original) The fire shelter storage system of claim 15, wherein the releasable fastener includes first fastener halves attached to the pouch and cover and wherein the handle includes second fastener halves whereby the handle may be interposed between the releasable fastener with the first fastener half of the pouch releasably attached to a second fastener half of the handle and the remaining second fastener half of the handle releasably attached to the first fastener half of the cover.

19. (Original) The fire shelter storage system of claim 15, wherein the releasable fastener is a fabric hook and loop fastener.

20. (Original) The fire shelter storage system of claim 15, wherein the fire shelter unit includes a secondary rigid protective sleeve holding a folded emergency fire shelter unit sealed in a protective envelope.

Appendix B

Specification Amendments

Please replace the Title of the Invention with the following Title:

AN EMERGENCY FIRE SHELTER STORAGE SYSTEM

At page 1, line 1, please insert the following:

RELATED APPLICATIONS

This application is a divisional of U.S. Patent Application Serial No. 10/286,176, filed November 1, 2002, the contents of which are incorporated herein by reference in their entirety.

Please replace paragraph [0002] with the following:

[0002] The present inventive subject matter relates to materials that are resistant to radiant and convective heat. More particularly, the present invention relates to a novel emergency fire shelter constructed of the heat and fire resistant materials. The present invention also relates to a kit containing an emergency fire shelter that can be ~~quickly~~ quickly deployed in the event of danger from a wildland fire.

Please replace paragraph [0009] with the following:

[0009] U.S. Patent Number 6,048,805 discloses a fire, heat and backdraft protection system for protecting firefighters in all types of fires. The protection system includes a composite laminate structure having a plurality

of layers for the protection of firefighters who are exposed to high temperatures of 2200 degrees ~~Farenheight~~ Fahrenheit for 30 minutes in duration. The plurality of layers includes an outer first layer, an inner second layer and an inner third layer. The outer first layer is a fiberglass textile having an intumescent coating resistant to heat, water and impact. The inner second layer is a metal foil layer for reflecting heat and eliminates the convection transfer of heat. The inner third layer is a low conductivity refractory blanket for reducing the transmission of heat. The inner fourth layer is a metal foil layer for reflecting heat and eliminates the convection transfer of heat.

Please replace paragraph [0015] with the following:

[0015] U.S. Patent Number 3,970,096 discloses a tent comprised of outer nonporous and inner porous layers disposed in spaced relation to each other, with a continuous air passageway there between. Compression tent supporting means comprises a plurality of demountable, ~~substantially,~~ substantially semicircular rods, preferably formed of ~~fiber glass~~ fiberglass, forming arched rafters, and of a plurality of relatively short pieces slidably interconnected to form ~~two-rod~~ two-rod units. These ~~two-rod~~ two-rod units are interconnected by a sleeve, slidably mounted on one unit, to slidably receive the end portion of the other. The arched rafters are spaced apart and aligned substantially parallel to each other and progressively decrease in diameter in a tent longitudinal direction. An inner tent layer is suspendedly supported by an outer layer by porous netting strips. At the end portions, nonporous, substantially semiannular shaped end members are provided which extend

radially inwardly and angularly between the inner and outer tent layers. At the end portions, the outer tent layer is under tension by opposite, outwardly directed forces. All of the forces holding the tent in place are tension forces except forces acting through the tent rod units which are compression forces. All heat generated within the tent, such as that formed by human breathing or by the burning of a candle, rises upwardly in the tent and passes through the inner tent layer, thence longitudinally through the passageway between the inner and outer tent layers and thereafter out through the tent end portions by way of breather passageways disposed in end portions of the tent.

Please replace paragraph [0019] with the following:

[0019] U.S. Patent Number 5,341,973 discloses a low profile backpack system which includes a mechanism for allowing free movement of the shoulder straps as the wearer moves, bends, twists from side to side, etc. The inventive mechanism comprises a buckle having a pair of transverse elongated slots. The buckle is fixed to the top of the pack by means of a single vertically oriented strap which passes through the lower of the two slots. A second strap passes through the upper slot and has its ends fixed to an end of each of two shoulder straps adapted to fit over the shoulders of the wearer. ~~A additional~~ An additional feature is the provision of a quick release fire shelter on the pack which may be deployed by one hand. The shelter is stored in a rectangularly shaped pouch depending from the bottom of the pack. An open end of the pouch is selectively closed by a flap secured by Velcro fasteners. Pulling a release strap depending from the pouch first disengages the fasteners.

Further pulling of the release strap causes the folded safety tent to be ejected from a plastic housing in which it is stored within the pouch.

Please replace paragraph [0039] with the following:

[0039] In use, fire and heat resistant materials operate under two scenarios, no hot gas contact and hot gas contact. The following is an example of such materials used in a fire shelter where there is no hot gas contact. In this ~~scenario~~ scenario, the incident energy (radiation) strikes the surface of the shelter. Most, approximately 95%, is reflected back to the environment. The remainder is absorbed and results in a heating of the surface. The temperature of the material (outer aluminum) rises and, because aluminum is a poor radiator, the energy is conducted through to the silica cloth and air spaces within the cloth matrix. Some energy is also lost to the environment (air) because the surrounding air is cooler than the aluminum layer. Silica cloth is a much better radiator so now there are multiple modes of energy transfer in response to a temperature difference between the back side of the aluminum (hot) and the air layer between the inner and outer laminate layers. Energy is transferred across the air space to the inner laminate which in turn rises in temperature. Because the inner layer is now warmer than the interior air in the shelter energy is transferred through the inner layer and the interior aluminum surface becomes warmer. Because it is a very poor radiator, the inner aluminum layer transfers energy to the air inside the shelter via convection.

Please replace paragraph [0044] with the following:

[0044] Inner shell 6 is comprised of a fiberglass cloth layer 18 and a second aluminum foil layer 20. Maximum flexibility, strength and a low weight ~~is~~ are desired when selecting fiberglass cloth layer 18. Style number 1080-D fiberglass cloth, available commercially, obtained through Cleveland Laminating, Corp. of Cleveland, Ohio is preferred for fiberglass cloth layer 18. Second aluminum foil layer 20 is laminated with an adhesive 16 to fiberglass cloth layer 18. Again, a high temperature, non-toxic glue as discussed above is preferred.

Please replace paragraph [0052] with the following:

[0052] Referring now to FIG 3, a view of floor 118 from under fire shelter 102, floor 118 is made up of various floor pieces 124 that are sewn together at floor seams 122. Floor 118 has a hole 120 that is preferably rectangular in shape and is used by a firefighter to gain access to fire shelter 102. More particularly, hole 120 is approximately eight inches in width and fifty-eight inches in length. Floor 118 is sewn to canopy 103 at seam 110 which is also used to attach handles 116 to fire shelter 102. Floor 118 is constructed of a ~~silica-based~~ silica-based cloth laminated on each side with an aluminum foil layer. The aluminum foil layer ~~are~~ is between 0.5 to 2.0 mil in thickness, preferably between 0.5 to 0.8 mil, most preferably approximately 0.65 mil in thickness. ~~Silica based~~ Silica-based cloth layer is 5 to 13 oz. cloth, most preferable 6.5 oz. cloth.

Please replace paragraph [0055] with the following:

[0055] As is understood in the art, the vinyl bag 218 includes ~~pull-tabs~~ pull-tabs 222 which may be grasped by the firefighter to rip open the vinyl bag 218 after it is removed from the pouch 212 to thereby free the fire shelter 102. The upper edge of the vinyl bag 218 is heat-sealed to prevent moisture and other contaminants from contacting the contained fire shelter 102 and produce a lip 224 to which one end of a nylon web 226 may be sewn. Sewing the nylon web 226 to the lip 224 provides a broad-area attachment between the nylon web 226 and the vinyl bag 218 to minimize the chance of a tearing of the vinyl bag 218 from force applied by the nylon web 226. The vinyl bag 218 is placed in the pouch 212 with the lip 224 extending from the open end 214.

Please replace paragraph [0061] with the following:

[0061] The web 226 and/or handle portion 242 may then be used as one point of purchase for the gripping and tearing away of ~~pull-tabs~~ pull-tabs 222 at the site of deployment. At this time, the backpack holding the pouch 212 will have been abandoned and a second hand will be available.

ABSTRACT

The present invention relates to a fire shelter storage system which comprises an emergency fire shelter constructed of a heat and fire resistant material, an outer protective pouch and a handle, whereby the emergency fire shelter is removed from the pouch by applying a force to the handle to release the releasable fastener and extract the fire shelter unit from the pouch.